Solve the following proportions:

(a) $\frac{12}{39} = \frac{20}{x}$ (b) $\frac{3}{5} = \frac{x}{17}$ (c) $\frac{x}{4} = \frac{3}{25}$

$20 \cdot 39 \div 12$ $x = 65$

B. $\frac{3}{5} = \frac{x}{17}$

$3 \times 17 = 51$

$5\overline{)51}$ 10.2

C. $x = 12$

$\frac{x}{4} \times \frac{3}{25} = x = 12$

$\frac{25x}{25} = \frac{12}{25}$ $x = .48$

cross multiple

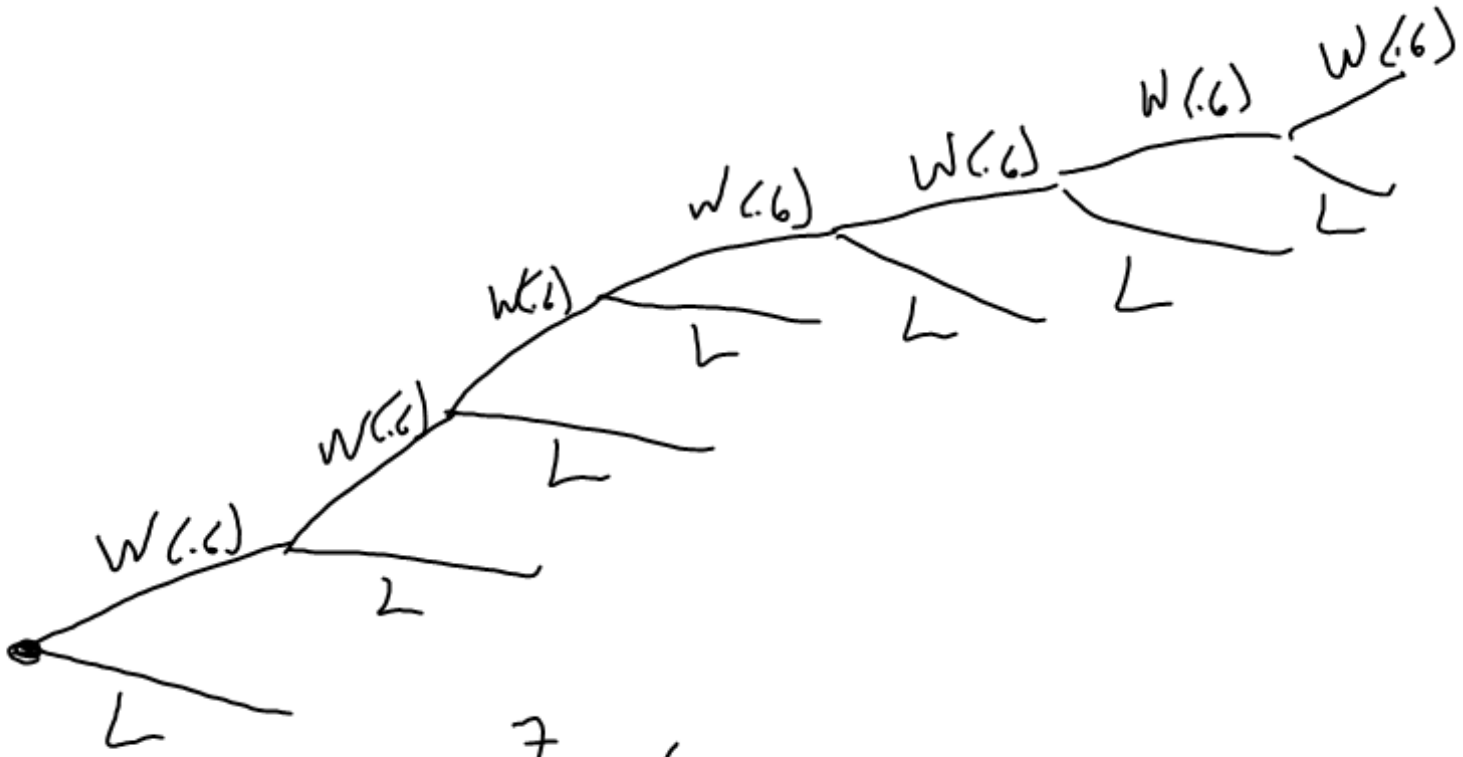
#2a 15 opening 250 app

a) $\frac{15}{250}$

b) $\frac{(250-15)}{250} = \frac{235}{250}$

c) $\frac{15}{250}$

#6



$.6^7$ $(.6 \times .6 \times .6 \times .6 \times .6 \times .6 \times .6$

is $.6 \times 7 = .6^7$

b) $.62^7$

c) $.62^7 \times .6^7$

#7

1 2 3 4 5

12 23 34 45
13 24 35
14 25
15

4 + 3 + 2 + 1

10 shifts

1 2 3 4 5

123 134 145
124 135
125

3 + 2 + 1

234 245 345
235

+ 2 + 1 - 1

10 shifts

1) Lacy worked as a temporary employee. Last week she earned $300 for 20 hours of work.

a) Use a proportion to find Lacy's pay for 40 hours of work.

b) How else could you have solved part a)?

c) How much does Lacy make per hour?

d) Complete the following table

e) Plot the points for 0 to 5 hours on graph paper.

Hours Worked	Pay $
0	
1	
2	
3	
4	
5	
100	
x	

a) $\frac{300\ \$}{20\ hr} \cdot \frac{x}{40\ hrs}$

$300 \times 40 = 1200 \div 20 = 60$

b) $\frac{20}{40} - \frac{300}{x}$

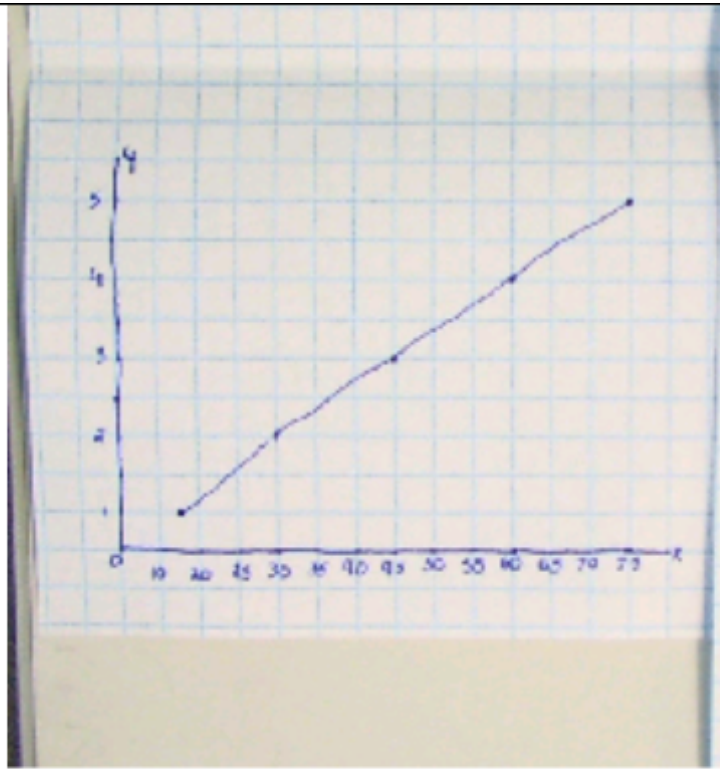
$300 \times 40 = 1200 \div 20 = 60$

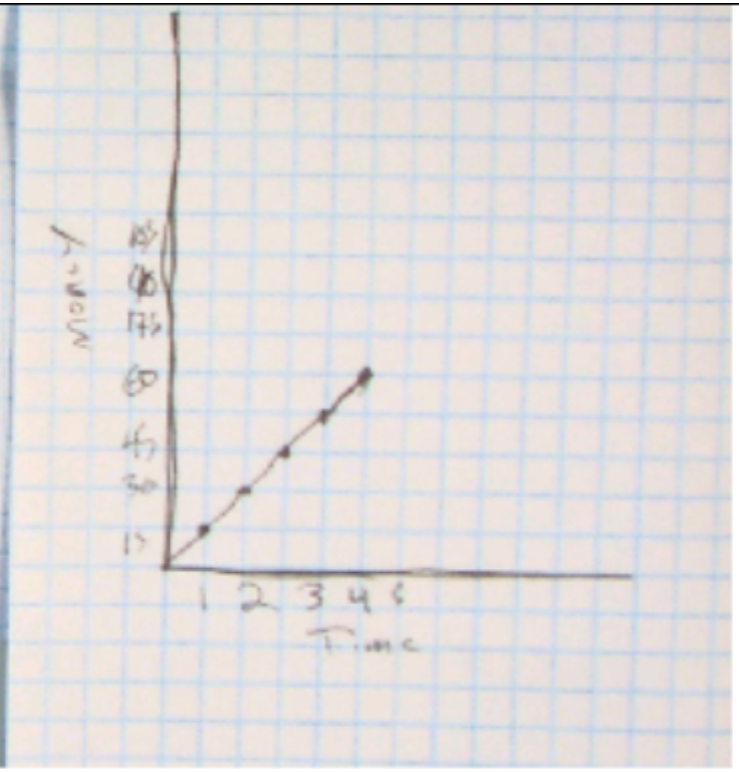
c) 15!

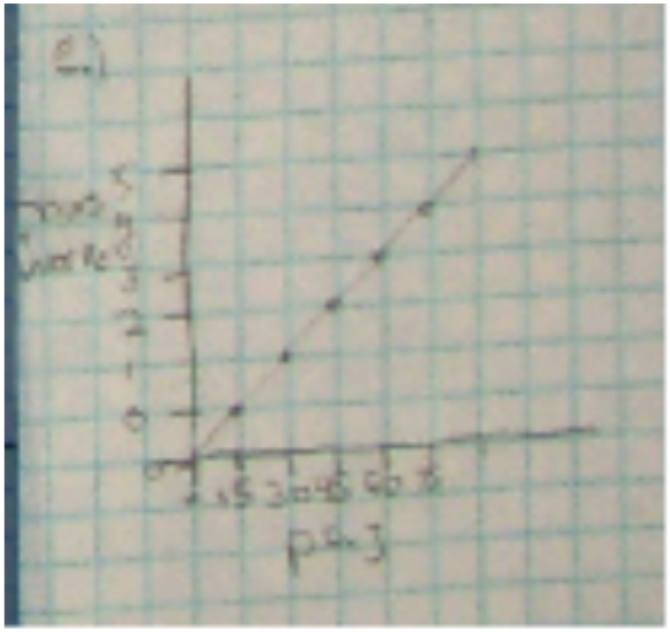
hours worked	Paid
0	0
1	15
2	30
3	45
4	60
5	75
100	1,500
x	

$n \times 15 = pay\ (\$)$

↗ hours worked







Slope → RATE

a proportion w/

1 in the denomentor

2) Joseph is another temp employee. He was paid $513 for 38 hours of work.

a) Find Josephs rate of pay.

b) Create a table like in problem 1) for Joseph's pay.

c) Plot the points for 0 to 5 hours of work on the same graph as Lacy's pay.

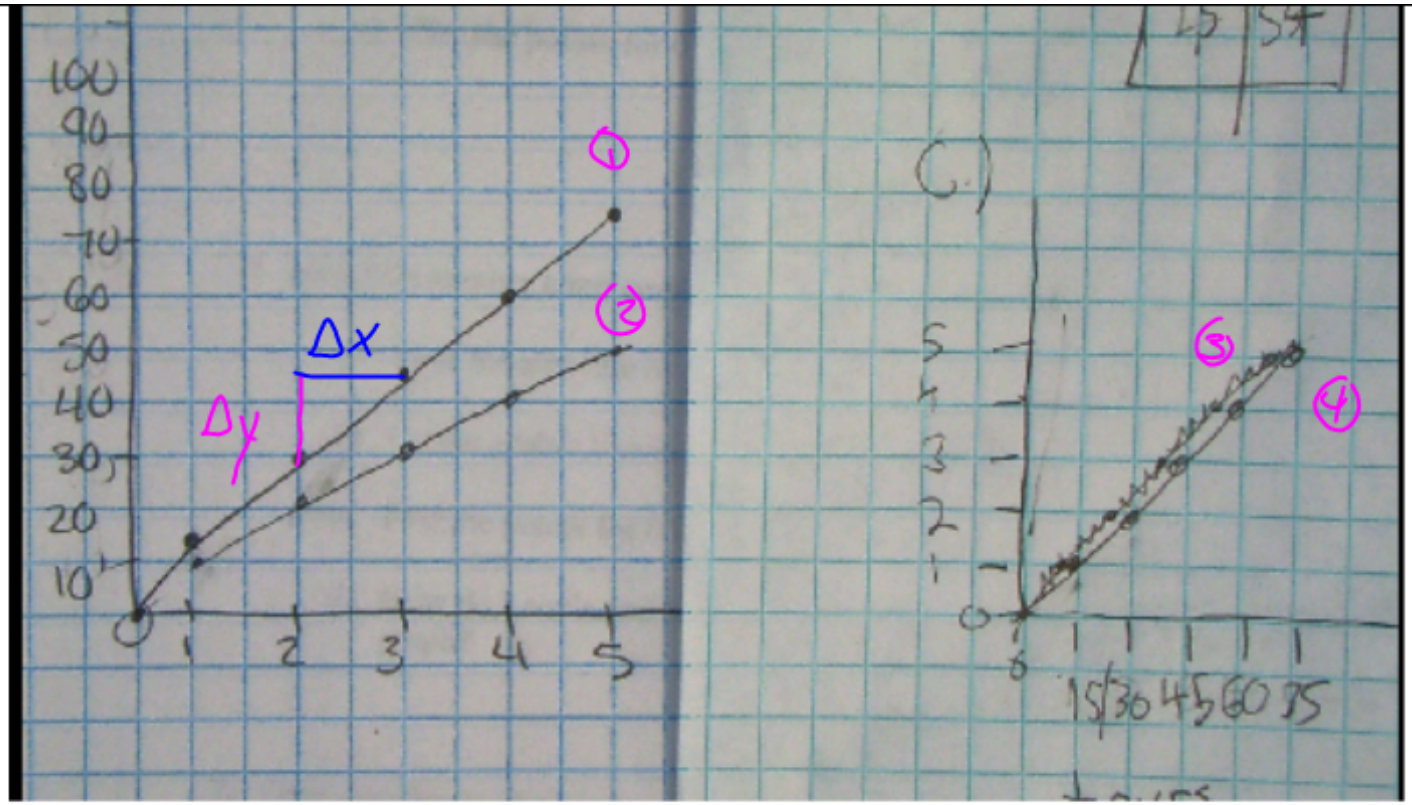
d) How do Lacy's and Joseph's rates of pay affect what you see on the graph?

a) Joseph makes $513 in 38 hours, how much does he make in 1 hour (his rate) $\frac{513}{38} = \$13.5/1hr$

$\frac{\$513}{38hr} = \frac{\$x}{1hr}$

b)

x	y
0	
1	
2	
3	
4	
5	



$$\text{Slope} = \frac{\text{rise}}{\text{run}} = \frac{\Delta y}{\Delta x} \qquad \Delta = \text{change}$$

HW 3.1 #1-4, 6, 8, 9, 11

4 slopes